

***Kalmia latifolia* - *Rhododendron catawbiense* – (*Gaylussacia baccata*, *Pieris floribunda*,
Vaccinium corymbosum) Shrubland**

COMMON NAME Mountain Laurel - Catawba Rhododendron – (Black Huckleberry, Mountain Fetterbush, Southern Appalachian Blueberry) Shrubland
SYNONYM Southern Appalachian Heath Bald
PHYSIOGNOMIC CLASS Shrubland (III)
PHYSIOGNOMIC SUBCLASS Evergreen shrubland (III.A)
PHYSIOGNOMIC GROUP Temperate broad-leaved evergreen shrubland (III.A.2)
PHYSIOGNOMIC SUBGROUP Natural/Semi-natural (III.A.2.N)
FORMATION Hemi-sclerophyllous temperate broad-leaved evergreen shrubland (III.A.2.N.b)

ALLIANCE *Rhododendron (catawbiense, carolinianum)* - *Kalmia latifolia* Shrubland Alliance

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM Upland

RANGE

Globally

This community occurs in the mountains of Georgia, North Carolina, and Tennessee.

Great Smoky Mountains National Park

This community was sampled on the Mount Le Conte quadrangle and not on the Cades Cove quadrangle, although it is possible there. This community is uncommon in the landscape but possible in other areas of the Park. On the Mount Le Conte quadrangle it was sampled on Brushy Mountain, ridges along the Alum Cave Trail south of Mount Le Conte (4600 and 4900 feet), and in the southwestern portion of the quadrangle on the western ridge of Balsam Point, the vicinity of Chimney Tops, and east of Bullhead.

ENVIRONMENTAL DESCRIPTION

Globally

This community occurs on ridges and steep rocky slopes at intermediate elevations in the southern Blue Ridge (4000 to 5000 feet elevation). Windfall, landslides, and small, localized, lightning-caused fires are important in the establishment and maintenance of these shrublands. This community can result from secondary succession after fire or logging or can occur as a topo-edaphic climax on steep or exposed sites.

Great Smoky Mountains National Park

This community occurs on southerly exposed ridges and steep slopes below 5000 feet elevation. Samples range from 4190 to 4900 feet elevation. One example is in a gap, on a convex slope, and may be a fire scar.

MOST ABUNDANT SPECIES

Globally

Stratum

No information

Species

Great Smoky Mountains National Park

Stratum

Tall shrub

Short shrub

Species

Rhododendron catawbiense, *Kalmia latifolia*

Rhododendron catawbiense, *Leiophyllum buxifolium*

CHARACTERISTIC SPECIES

Globally

No information

Great Smoky Mountains National Park

Kalmia latifolia, *Rhododendron catawbiense*, *Gaylussacia baccata*, *Pieris floribunda*, *Vaccinium corymbosum*, *Galax urceolata*, *Gaultheria procumbens*

VEGETATION DESCRIPTION

Globally

No information

Great Smoky Mountains National Park

This community is a mostly evergreen shrubland, although deciduous shrubs may be present and even locally dominant. Shrubs form a dense, sometimes impenetrable thicket, one to four meters tall. The most typical shrub dominants are *Kalmia latifolia* and *Rhododendron catawbiense*, although *Gaylussacia baccata*, *Leiophyllum buxifolium*, *Pieris floribunda*, *Rhododendron carolinianum*, *Rhododendron maximum*, *Vaccinium corymbosum* are dominant or have high coverage in some occurrences. Other shrubs include *Aronia melanocarpa*, *Clethra acuminata*, *Vaccinium simulatum*, *Vaccinium stamineum*, and *Viburnum nudum* var. *cassinoides*. Small openings in the shrub canopy are dominated by rock or herbs, with some occurrences having up to 60 percent exposed rock. However, herb cover beneath the shrub canopy is absent or very sparse (< 5 percent) and may include *Galax urceolata*, *Gaultheria procumbens*, *Goodyera pubescens*, *Melampyrum lineare*, *Mitchella repens*, and *Pteridium aquilinum*. *Smilax rotundifolia* is a common vine. Small, scattered trees are possible (*Acer rubrum*, *Amelanchier laevis*, *Betula alleghaniensis*, *Ilex montana*, *Magnolia fraseri*, *Nyssa sylvatica*, *Oxydendrum arboreum*) and may be more typical of shrublands resulting from intense fires on less exposed sites.

OTHER NOTEWORTHY SPECIES

Animals observed in this community include Black Bear, Peregrine Falcon, Dark-eyed Junco, and Black-throated Green Warbler.

CONSERVATION RANK

G2G3

RANK JUSTIFICATION

This is a locally common heath bald type in parts of the southern Blue Ridge. Some occurrences represent a topo-edaphic climax, while other areas require fire to maintain the physiognomy. Fire-maintained occurrences are threatened by general fire prevention in the mountains.

DATABASE CODE

CEGL003814

COMMENTS

Globally

These shrublands possibly have a broader distribution and typically occur at lower elevations than other montane shrublands in the *Rhododendron (catawbiense, carolinianum) - Kalmia latifolia* Shrubland Alliance. In the southern Blue Ridge, this shrubland generally occurs at elevations over 1200 meters (4000 feet) and grades into forests dominated by *Quercus coccinea*, *Pinus rigida*, *Pinus pungens*, and/or *Quercus rubra*. High elevation occurrences may be compositionally similar to another heath bald community, *Rhododendron carolinianum - Rhododendron catawbiense - Leiophyllum buxifolium* Shrubland (CEGL007876).

Great Smoky Mountains National Park

This community typically occurs below the elevation of spruce - fir forests and adjacent to forests dominated by Table Mountain pine, northern red oak, or *Fagus grandifolia* ("Beech Gaps"). Occurrences at high elevations may be transitional to *Rhododendron carolinianum - Rhododendron catawbiense - Leiophyllum buxifolium* Shrubland (CEGL007876), and it may be difficult to distinguish the two heath bald signatures. The alliance may serve as a better mapping unit for these communities.

REFERENCES

Risk 1993, Schafale and Weakley 1990